

Circuit for Extracorporeal Blood Circulation**ABSTRACT**

A circuit for extracorporeal blood circulation, which is used for a single-needle dialysis, comprises a blood withdrawal line (2) having an arterial pump portion (23), and a blood return line (4) having a venous pump portion (43). Pump portions are designed to be coupled with corresponding peristaltic pumps (6), (7). An arterial expansion chamber (25) is arranged on the withdrawal line downstream from said arterial pump portion. A venous expansion chamber (45) is arranged on the return line upstream from said venous pump portion. The two expansion chambers are firmly joined one to the other into an integrated structure (9), which is equipped inside with two ducts connecting the arterial expansion chamber with two fluid connections attached outside to the integrated structure. The circuit can be assembled and disassembled from a dialysis machine easily and rapidly.